

## ABSTRACT

Static timing analysis attempts to exhaustively analyze all critical paths of a design. With ever decreasing geometries and ever increasing design complexity, manually identifying timing violations with standard static timing analysis can be very complex and time consuming. A static timing analysis tool can advantageously manage multiple runs having different modes and corners and automatically merge the results generated by the runs. The STA tool can perform the runs either in parallel or in series. Advantageously, the STA tool can save the full timing analysis generated by each run and then extract information from these saved results to form merged results for the design. These merged results can provide different levels of analysis coverage, supply path information at various levels of detail, allow selectable accessibility to information, and highlight propagation of timing changes/violations in the design.